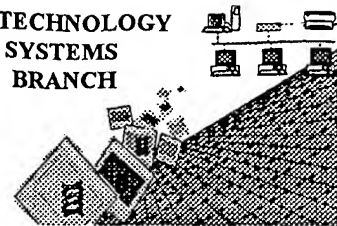


0130

BIOTECHNOLOGY  
SYSTEMS  
BRANCH



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/614,639  
Source: OIP  
Date Processed by STIC: 7/25/2003

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003

# Raw Sequence Listing Error Summary

## ERROR DETECTED

## SUGGESTED CORRECTION

SERIAL NUMBER: 10/614,639

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics  
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino  
Numbering The numbering under each 5<sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0  
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s). Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences  
(OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:  
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
This sequence is intentionally skipped  
  
Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences  
(NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.  
<210> sequence id number  
<400> sequence id number  
000
- 9 Use of n's or Xaa's  
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.  
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  
In <220> to <223> section, please explain location of n or Xaa; and which residue n or Xaa represents.
- 10 Invalid <213>  
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or Artificial Sequence.
- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.  
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0  
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.



OIEP

## RAW SEQUENCE LISTING

DATE: 07/25/2003

PATENT APPLICATION: US/10/614,639

TIME: 08:01:15

Input Set : A:\Andcpdv2.app

Output Set: N:\CRF4\07252003\J614639.raw

3 <110> APPLICANT: ALBANI, SALVATORE  
 5 <120> TITLE OF INVENTION: METHOD FOR ISOLATION, QUANTIFICATION, CHARACTERIZATION  
 6 AND MODULATION OF ANTIGEN-SPECIFIC T CELLS  
 8 <130> FILE REFERENCE: AND-TCCCIPI1-DIV2  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/614,639  
 C--> 11 <141> CURRENT FILING DATE: 2003-07-07  
 13 <150> PRIOR APPLICATION NUMBER: 09/756,983  
 14 <151> PRIOR FILING DATE: 2001-01-09  
 16 <150> PRIOR APPLICATION NUMBER: PCT/US99/24666  
 17 <151> PRIOR FILING DATE: 1999-10-19  
 19 <150> PRIOR APPLICATION NUMBER: 09/421,506  
 20 <151> PRIOR FILING DATE: 1999-10-19  
 22 <150> PRIOR APPLICATION NUMBER: 60/105,018  
 23 <151> PRIOR FILING DATE: 1998-10-20  
 25 <160> NUMBER OF SEQ ID NOS: 24  
 27 <170> SOFTWARE: PatentIn Ver. 2.1  
 29 <210> SEQ ID NO: 1  
 30 <211> LENGTH: 17  
 31 <212> TYPE: PRT  
 32 <213> ORGANISM: Artificial Sequence  
 34 <220> FEATURE:  
 35 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide derived  
 36 from third hyper V region of IE molecule of Mus musculus  
 38 <400> SEQUENCE: 1  
 39 Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val Asp Lys  
 40 1 5 10 15  
 42 Ala  
 46 <210> SEQ ID NO: 2  
 47 <211> LENGTH: 15  
 48 <212> TYPE: PRT  
 49 <213> ORGANISM: Artificial Sequence  
 51 <220> FEATURE:  
 52 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide derived  
 53 from boe I protein of Epstein Barr virus  
 55 <400> SEQUENCE: 2  
 56 Thr Arg Asp Asp Ala Glu Tyr Leu Leu Gly Arg Glu Ser Val Leu  
 57 1 5 10 15  
 60 <210> SEQ ID NO: 3  
 61 <211> LENGTH: 16  
 62 <212> TYPE: PRT  
 63 <213> ORGANISM: Artificial Sequence  
 65 <220> FEATURE:  
 66 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide derived

Does Not Comp  
Corrected Diskette Needed

pg 2-3

## RAW SEQUENCE LISTING

DATE: 07/25/2003

PATENT APPLICATION: US/10/614,639

TIME: 08:01:15

Input Set : A:\Andcpdv2.app

Output Set: N:\CRF4\07252003\J614639.raw

67 from the haemophilus influenza virus

69 &lt;400&gt; SEQUENCE: 3

70 Thr Ser Phe Pro Met Arg Gly Asp Leu Ala Lys Arg Glu Pro Asp Lys

71 1 5 10 15

74 &lt;210&gt; SEQ ID NO: 4

75 &lt;211&gt; LENGTH: 36

76 &lt;212&gt; TYPE: PRT

77 &lt;213&gt; ORGANISM: Artificial Sequence

79 &lt;220&gt; FEATURE:

80 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide derived

81 from the TCR receptor of Mus musculus

83 &lt;220&gt; FEATURE:

84 &lt;221&gt; NAME/KEY: MOD\_RES

85 &lt;222&gt; LOCATION: (18)

86 &lt;223&gt; OTHER INFORMATION: Ser, Ile or Thr

88 &lt;400&gt; SEQUENCE: 4

89 Leu His Ile Ser Ala Val Asp Pro Glu Asp Ser Ala Val Tyr Phe Cys

90 1 5 10 15

92 Ala Xaa Ser Gln Glu Phe Phe Ser Ser Tyr Glu Gln Tyr Phe Gly Pro

93 20 25 30

95 Gly Thr Arg Leu

96 35

99 &lt;210&gt; SEQ ID NO: 5

100 &lt;211&gt; LENGTH: 9

101 &lt;212&gt; TYPE: PRT

102 &lt;213&gt; ORGANISM: Artificial Sequence

104 &lt;220&gt; FEATURE:

105 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide  
derived

106 from the influenza virus

108 &lt;400&gt; SEQUENCE: 5

109 Gly Ile Leu Gly Phe Val Phe Thr Leu

110 1 5

113 &lt;210&gt; SEQ ID NO: 6

114 &lt;211&gt; LENGTH: 9

115 &lt;212&gt; TYPE: PRT

116 &lt;213&gt; ORGANISM: Artificial Sequence

118 &lt;220&gt; FEATURE:

119 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide  
derived

120 from the influenza virus

122 &lt;400&gt; SEQUENCE: 6

123 Val Lys Leu Gly Glu Phe Tyr Asn Gln

124 1 5

127 &lt;210&gt; SEQ ID NO: 7

128 &lt;211&gt; LENGTH: 11

129 &lt;212&gt; TYPE: PRT

130 &lt;213&gt; ORGANISM: Artificial Sequence

132 &lt;220&gt; FEATURE:

133 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide

135 &lt;220&gt; FEATURE:

insufficient explanation -  
give source of genetic material

(see item 11 on Euro  
summary sheet)

## RAW SEQUENCE LISTING

DATE: 07/25/2003

PATENT APPLICATION: US/10/614,639

TIME: 08:01:15

Input Set : A:\Andcpdv2.app

Output Set: N:\CRF4\07252003\J614639.raw

136 <221> NAME/KEY: MOD\_RES  
 137 <222> LOCATION: (2)  
 138 <223> OTHER INFORMATION: cyclohexylalanine  
 140 <400> SEQUENCE: 7  
 141 Lys Xaa Val Ala Ala Trp Thr Leu Lys Ala Ala  
 142 1 5 10  
 145 <210> SEQ ID NO: 8  
 146 <211> LENGTH: 13  
 147 <212> TYPE: PRT  
 148 <213> ORGANISM: Artificial Sequence  
 150 <220> FEATURE:  
 151 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide  
 derived  
 152 from the influenza virus  
 154 <400> SEQUENCE: 8  
 155 Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr  
 156 1 5 10  
 159 <210> SEQ ID NO: 9  
 160 <211> LENGTH: 17  
 161 <212> TYPE: PRT  
 162 <213> ORGANISM: Artificial Sequence  
 164 <220> FEATURE:  
 165 <223> OTHER INFORMATION: Description of Artificial Sequence: Artificial  
 167 <400> SEQUENCE: 9  
 168 Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ile Asn Glu Ala Gly  
 169 1 5 10 15  
 171 Arg  
 175 <210> SEQ ID NO: 10  
 176 <211> LENGTH: 15  
 177 <212> TYPE: PRT  
 178 <213> ORGANISM: Escherichia coli  
 180 <400> SEQUENCE: 10  
 181 Gln Lys Arg Ala Ala Tyr Asp Gln Tyr Gly His Ala Ala Phe Glu  
 182 1 5 10 15  
 185 <210> SEQ ID NO: 11  
 186 <211> LENGTH: 15  
 187 <212> TYPE: PRT  
 188 <213> ORGANISM: Homo sapiens  
 190 <400> SEQUENCE: 11  
 191 Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly  
 192 1 5 10 15  
 195 <210> SEQ ID NO: 12  
 196 <211> LENGTH: 9  
 197 <212> TYPE: PRT  
 198 <213> ORGANISM: Homo sapiens  
 200 <400> SEQUENCE: 12  
 201 Gly Ile Leu Gly Phe Val Phe Thr Leu  
 202 1 5  
 205 <210> SEQ ID NO: 13  
 206 <211> LENGTH: 9

give source of  
 genetic  
 material

Please correct  
 any subsequent  
 sequences showing  
 this type of  
 error

## RAW SEQUENCE LISTING

DATE: 07/25/2003

PATENT APPLICATION: US/10/614,639

TIME: 08:01:15

Input Set : A:\Andcpdv2.app

Output Set: N:\CRF4\07252003\J614639.raw

```

207 <212> TYPE: PRT
208 <213> ORGANISM: Homo sapiens
210 <400> SEQUENCE: 13
211 Val Lys Leu Gly Glu Phe Tyr Asn Gln
212   1           5
215 <210> SEQ ID NO: 14
216 <211> LENGTH: 13
217 <212> TYPE: PRT
218 <213> ORGANISM: Homo sapiens
220 <400> SEQUENCE: 14
221 Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr
222   1           5           10
225 <210> SEQ ID NO: 15
226 <211> LENGTH: 942
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial Sequence
230 <220> FEATURE:
231 <223> OTHER INFORMATION: Description of Artificial Sequence: Fusion construct with
232     human and bacterial sequences
234 <220> FEATURE:
235 <221> NAME/KEY: CDS
236 <222> LOCATION: (1)..(939)
238 <400> SEQUENCE: 15
239 atg ggc cac aca cgg agg cag gga aca tca cca tcc aag tgt cca tac      48
240 Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
241   1           5           10           15
243 ctg aat ttc ttt cag ctg ttg gtg ctg gct ggt ctt tct cac ttc tgt      96
244 Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
245           20           25           30
247 tca ggt gtt atc cac gtg acc aag gaa gtg aaa gaa gtg gca acg ctg      144
248 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
249           35           40           45
251 tcc tgt ggt cac aat gtt tct gtt gaa gag ctg gca caa act cgc atc      192
252 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
253           50           55           60
255 tac tgg caa aag gag aag aaa atg gtg ctg act atg atg tct ggg gac      240
256 Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
257   65           70           75           80
259 atg aat ata tgg ccc gag tac aag aac cgg acc atc ttt gat atc act      288
260 Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
261           85           90           95
263 aat aac ctg tcc att gtg atc ctg gct ctg cgc cca tct gac gag ggc      336
264 Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
265           100          105          110
267 aca tac gag tgt gtt gtt ctg aag tat gaa aaa gac gct ttc aag cgg      384
268 Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
269           115          120          125
271 gaa cac ctg gct gaa gtg acg tta tca gtc aaa gct gac ttc cct aca      432
272 Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr

```

## RAW SEQUENCE LISTING

DATE: 07/25/2003

PATENT APPLICATION: US/10/614,639

TIME: 08:01:15

Input Set : A:\Andcpdv2.app

Output Set: N:\CRF4\07252003\J614639.raw

```

273      130      135      140
275 cct agt ata tct gac ttt gaa att cca act tct aat att aga agg ata 480
276 Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
277 145      150      155      160
279 att tgc tca acc tct gga ggt ttt cca gag cct cac ctc tcc tgg ttg 528
280 Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
281      165      170      175
283 gaa aat gga gaa gaa tta aat gcc atc aac aca aca gtt tcc caa gat 576
284 Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
285      180      185      190
287 cct gaa act gag ctc tat gct gtt agc gaa ttc ggc ggc tcc ggt ggt 624
288 Pro Glu Thr Glu Leu Tyr Ala Val Ser Glu Phe Gly Gly Ser Gly Gly
289      195      200      205
291 agc gcc aca cct caa aat att act gat ttg tgt gca gaa tac cac aac 672
292 Ser Ala Thr Pro Gln Asn Ile Thr Asp Leu Cys Ala Glu Tyr His Asn
293      210      215      220
295 aca caa ata cat acg cta aat gat aag ata ttt tcg tat aca gaa tct 720
296 Thr Gln Ile His Thr Leu Asn Asp Lys Ile Phe Ser Tyr Thr Glu Ser
297 225      230      235      240
299 cta gct gga aaa aga gag atg gct atc att act ttt aag aat ggt gca 768
300 Leu Ala Gly Lys Arg Glu Met Ala Ile Ile Thr Phe Lys Asn Gly Ala
301      245      250      255
303 act ttt caa gta gaa gta cca ggt agt caa cat ata gat tca caa aaa 816
304 Thr Phe Gln Val Glu Val Pro Gly Ser Gln His Ile Asp Ser Gln Lys
305      260      265      270
307 aaa gcg att gaa agg atg aag gat acc ctg agg att gca tat ctt act 864
308 Lys Ala Ile Glu Arg Met Lys Asp Thr Leu Arg Ile Ala Tyr Leu Thr
309      275      280      285
311 gaa gct aaa gtc gaa aag tta tgt gta tgg aat aat aaa acg cct cat 912
312 Glu Ala Lys Val Glu Lys Leu Cys Val Trp Asn Asn Lys Thr Pro His
313      290      295      300
315 gcg att gcc gca att agt atg gca aat taa 942
316 Ala Ile Ala Ala Ile Ser Met Ala Asn
317 305      310
320 <210> SEQ ID NO: 16
321 <211> LENGTH: 313
322 <212> TYPE: PRT
323 <213> ORGANISM: Artificial Sequence
325 <220> FEATURE:
326 <223> OTHER INFORMATION: Description of Artificial Sequence: Fusion construct with
327 human and bacterial sequences
329 <400> SEQUENCE: 16
330 Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
331 1 5 10 15
333 Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
334 20 25 30
336 Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
337 35 40 45
339 Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/614,639

DATE: 07/25/2003  
TIME: 08:01:16

Input Set : A:\Andcpdv2.app  
Output Set: N:\CRF4\07252003\J614639.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 18  
Seq#:7; Xaa Pos. 2



**VERIFICATION SUMMARY**

DATE: 07/25/2003

PATENT APPLICATION: US/10/614,639

TIME: 08:01:16

Input Set : A:\Andcpdv2.app

Output Set: N:\CRF4\07252003\J614639.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:16

L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0